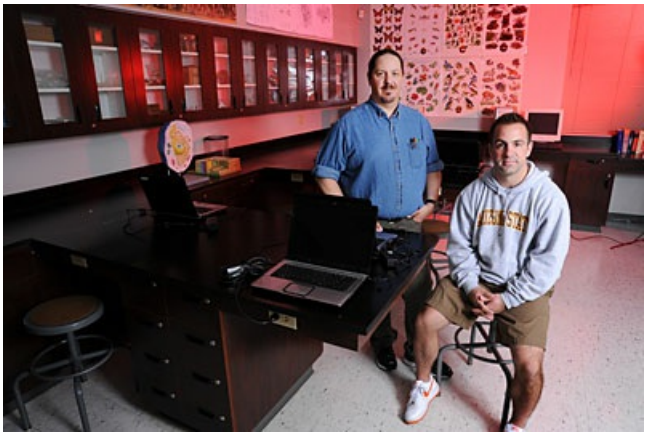


Shoshone-Bannock High School science teachers Scott Shramek, left, and Todd Thorne received a $10,000 classroom makeover grant from INL, which awarded a similar grant to Washington Elementary in Caldwell, Idaho.

Grants from Idaho National Laboratory make over science classrooms

By Kortny Rolston and Marilyn Whitney, *INL Communications & Governmental Affairs*

Scott Shramek and Todd Thorne knew they would have to make do with limited supplies and resources when they started teaching science at Shoshone-Bannock High School on Idaho's Fort Hall Reservation.

The school has a small yearly science budget — about $1,400 — to pay for supplies and textbooks. And most of its existing lab equipment is broken or obsolete.

But Shramek, who teaches life science, and Thorne, the physical science instructor, didn't realize how hard explaining concepts would be without specimens to dissect, a vacuum tube to demonstrate gravity or more than one working Bunsen burner.

"Sometimes, all I can do is show them things in a textbook because we don't have enough working equipment or supplies for the students to do a lab," Shramek said. "Science comes alive for students when they can dissect a frog or earthworm. Projects and experiments spark their interest, not reading from a textbook."

Washington Elementary School first graders attend a check presentation by INL STEM education coordinator Anne Seifert.

Come fall, however, money and equipment will no longer be an issue.

Seifert, left, with a team of Washington Elementary first grade teachers, who will purchase interactive "smart" boards with their classroom makeover grant.

The Fort Hall duo recently won one of Idaho National Laboratory's new $10,000 Extreme Classroom Makeover grants. A second grant was awarded to Washington Elementary School in Caldwell, Idaho.

INL created the $10,000 awards for schools that promote integrating several subjects into a lesson or unit. The grants can be used to purchase classroom instructional resources, materials and laboratory equipment.

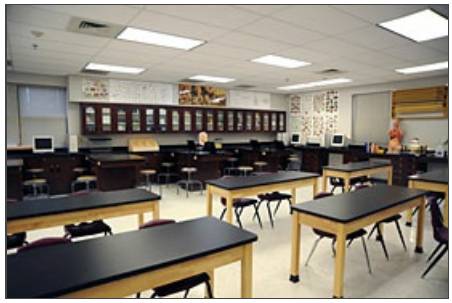
Melinda Hamilton, INL's director of Education Programs, said both schools — Shoshone-Bannock High and Washington Elementary — submitted excellent proposals.

"These schools highlight the innovative ideas teachers across the state have to make learning real and relevant for students," she said. "The evaluation team was especially impressed by how theses teachers planned to use the requested equipment and technology to integrate science, technology, engineering and math into their classrooms."

At Washington Elementary, a team of first-grade teachers plans to purchase Mimio Interactive Boards to integrate math and science and to promote higher levels of engagement and learning.

These "smart" boards are the 21st-century equivalent to a chalkboard and allow students to experience a lesson, topic or discussion in much greater detail and depth. With the equipment, Washington Elementary first-graders will have an opportunity to learn through virtual field trips, web quests and interactive lessons.

"In order for our students to be competitive in the outside world in 12 years when they graduate, these lifelong skills utilizing technology and associated resources need to start in the early years," Principal Sherawn Reberry said.



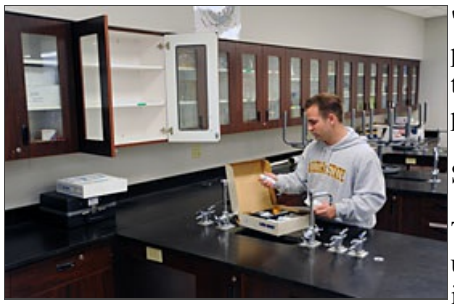
The classroom makeover grant will help Shoshone-Bannock High School outfit laboratories so students can do hands-on

Students come to first grade with a range of skills and abilities, and the demographics at Washington

Elementary make it especially challenging. Many students are English language learners (ELL students) with little or no academic English language experience.

activities and lab projects.

The interactive whiteboards help make learning more collaborative, and the combination of visual aids and written text will allow teachers to provide explicit vocabulary words with definitions and visuals. The ability to put words into the context of a real-life example via the boards will help ELL students develop connections with the concepts being taught.



Thorne, who teaches physical science at Shoshone-Bannock High School, has struggled to explain concepts without, for example, a vacuum tube to demonstrate gravity.

"The interactive white boards will enable us to differentiate lessons to challenge some students while providing basic skills for others," said Rebekah Rynearson, the Washington teacher who submitted the grant. "It will also challenge us as teachers to stay current in technological developments and to provide more engaging and authentic lessons for our students."

Shramek and Thorne believe their grant will have a similar impact.

They plan to buy equipment for each of their classrooms and some that they can share. The two will use the supplies mainly for science, but also to help their students with math and reading, which they incorporate into their lessons.

At the top of their list, however, are specimens and basic equipment their students need to complete a science lab project.

"Our students will finally get to do some hands-on projects and science experiments, and that is very important to us," Shramek said. "We want to be able to show them why science is so exciting."

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